ABSTRACT

Object stores are used as building blocks to construct a system with variable complexity on a network. Typically, an object store comprises information (e.g., data) stored in object format, or objects. The objects and object stores are managed by an object version management mechanism that adapts to different object store types and optimizes resource consumption by each object store. Various data fields are used to indicate an object's version within an object store. Version information is used to compare the states among matching object replicas in matching object stores. Utilizing both the object store based system and the object version management mechanism, a data synchronization protocol is developed. The data synchronization protocol is capable of adapting to different types of object stores and the characteristics of network connection media to optimize data synchronization.

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